



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

August 19, 2009

Via Facsimile (617) 526-5000 and U.S. Mail
Mark G. Borden, Esq.
Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, MA 02109

Re: MKS Instruments, Inc.
Schedule TO-I/A
Filed August 17, 2009
File No. 5-58011

Dear Mr. Borden:

We have limited our review of the filing to those issues we have addressed in our comments below. Where indicated, we think you should revise the document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

The purpose of our review process is to assist you in the compliance with the applicable disclosure requirements and to enhance the overall disclosure in the filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Schedule TO-I/A

Exhibit 99(a)(1)(A): Offering Memorandum

1. We note your response to prior comment 3. In support of your ability to rely on the global exemptive order, you indicate that exclusions of eligible optionholders, if they do occur, would not have a material impact on the compensatory purposes of the offer in the aggregate. With a view toward possible revised disclosure, based on an assumed expiration date as of the date of your revised response and assuming full participation in the offer by all eligible optionholders, supplementally advise us of the hypothetical number of eligible optionholders that would face exclusion as a result of the application of the exchange ratio expressed as a percentage of overall optionholders with eligible options.

* * *

As appropriate, please amend your filing in response to these comments. Please electronically submit a cover letter with your amendment that keys your responses to our comments. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all material information to investors. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all

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information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

Please direct any questions to me at (202) 551-3757. You may also contact me via facsimile at (202) 772-9203. Please send all correspondence to us at the following ZIP code: 20549-3628.

Sincerely,

Melissa Campbell Duru
Special Counsel
Office of Mergers & Acquisitions